



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,315	02/01/2001	Hyun-Sook Jung	41671/P849	8247
23363	7590	06/28/2007	EXAMINER: [REDACTED]	
CHRISTIE, PARKER & HALE, LLP			MERCADO, JULIAN A	
PO BOX 7068			ART UNIT	PAPER NUMBER
PASADENA, CA 91109-7068			1745	
MAIL DATE		DELIVERY MODE		
06/28/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/775,315	JUNG ET AL.	
	Examiner	Art Unit	
	Julian Mercado	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 March 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4 and 11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Remarks

This Office action is responsive to applicant's amendment filed on March 30, 2007.

Claims 1-4 and 11 are pending.

This Office action is made NON-FINAL.

Specification

The amendment filed March 30, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the amendment to the specification drawn to the lithium nickel cobalt oxides and lithium manganese oxides being chemically bonded but are not reacted and remain distinct chemical species is considered new matter. (emphasis in the new matter language)

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The rejection of claim 11 under 35 U.S.C. 112, first paragraph has been withdrawn. Applicant's assertions in regards to the present claims being drawn to a two-component mixture as supported by the disclosure on page 6 lines 5-11 have been fully considered. To this end, page 7 of the disclosure states that a "binder helps the oxide particles to be mixed uniformly and

Art Unit: 1745

bound together." (lines 3-4, emphasis added) Thus, the claimed oxides which "remain distinct chemical species and are bonded together" has been interpreted in a manner consistent with applicant's disclosure. Applicant's clarification on the claimed second binder is also acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer (U.S. Pat. 5,783,333).

The rejection based on Mayer is reinstated for the detailed reasons already of record. The examiner had withdrawn Mayer as prior art pending the 35 U.S.C. 112, first paragraph rejection (now withdrawn). For the reasons already of record, Mayer is asserted to teach or at least suggest that the lithium manganese oxides and lithium nickel cobalt oxides are bonded together while remaining distinct chemical species insofar as a polymeric binder is heated to its melting point to bind the two materials, i.e. "[t]he various components are well mixed and then thermally reacted at a temperature of between about 500° and 1300° C. (col. 11 lines 43-45)

Applicant's arguments filed on November 28, 2006 has been reconsidered. Applicant submits that in Mayer the oxides are formed by a chemical reaction, citing column 11 lines 36-50, and as such is alleged to not teach that the oxides remain distinct chemical species. This

Art Unit: 1745

argument is not persuasive, as the reaction which proceeds in Mayer at the specified temperatures is no different than the reaction disclosed by applicant on page 7, to wit:

The resulting mixture is heat-treated at a low temperature. The heat-treating is preferably performed at 200 to 500°C.

Furthermore, Mayer in fact teaches that the oxides remain a distinct chemical species. See col. 8 lines 22-25 and lines 42-46:

Composite positive electrodes of this invention include a "mixture" of lithium nickel cobalt metal oxides and one or more other chemically-homogeneous electrochemically-active positive electrode materials.

The term "mixture" is used herein in the sense commonly employed in the chemical arts. Thus, a mixture of oxides in accordance with this invention is composed of distinct chemical species, and, in theory, can be separated by physical means.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pynenburg et al. (U.S. Pat. 5,429,890) in view of Hasegawa et al. (U.S. Pat. 5,370,948).

The rejection is maintained for the reasons of record. The examiner notes that claims 1-4 are submitted for consideration as previously presented. The scope of the present claims is the same as that previously considered in the prior Office action.

The declaration under 37 CFR 1.132 filed on March 30, 2007 is insufficient to overcome the rejection of claims 1-4 based upon Pynenburg et al. in view of Hasegawa et al. as set forth in prior Office action. The comparative data shown in the declaration is not deemed representative of the ratio specifically taught by the prior art. The ratio of "2/8" is not considered representative of a ratio of less than 1:1 as presently claimed. A ratio of "2/8", while clearly a ratio which is less than 1:1, is deemed more representative of a ratio of 1:4. Additionally, the examiner once again notes that Pynenburg et al. specifically discloses the mixture as being in a ratio of from

Art Unit: 1745

1:10 to 10:1. See col. 7 lines 55-60. The examiner once again asserts that optimization of the metal oxides is result-effective given that *combining* the metal oxides in and of itself would naturally comprise optimization of its relative proportions so as to achieve the increased cell capacity resulting from this combination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Julian Mercado



PATRICK JOSEPH RYAN
PATENT EXAMINER